Amendments to Claims

1 – 30. (Canceled)

31. (New) An electrically conductive shaped article comprising a polymer resin and conductive fillers, wherein the polymer resin is a polymer blend comprising (1) from about 10 to 10 wt% of a grafted polyolefin or a blend of grafted polyolefins and (2) from 0 to about 90 wt% of at least one other thermo plastic polymer having a melting point below 280°C.

32. (New) The electrically conductive shaped article of claim 31 wherein the polymer blend comprises from 50 to 100 wt% of a grafted polyolefin or a blend of grafted polyolefins, and from 0 to 50 wt% of at least one thermoplastic polymer having a melting point below 280°C.

33. (New) The electrically conductive shaped article of claim 31, wherein the grafted polyolefin is a grafted polypropylene.

34. (New) The electrically conductive shaped article of claim 33, wherein the grafted polypropylene is maleic anhydride grafted polypropylene.

35. (New) The electrically conductive shaped article of claim 31, wherein the grafted polyolefin contains from about 0.05 wt% to about 10 wt% of ethylenically unsaturated carboxylic acid or its derivatives grafted onto the grafted polyolefin.

36. (New) The electrically conductive shaped article of claim 35 wherein the grafted polyolefin contains from 0.05 to 5 wt% of ethylenically unsaturated carboxylic acid or its derivatives grafted onto the grafted polyolefin.

37. (New) The electrically conductive shaped article of any one of claim 31 comprising from about 10 wt% to about 50 wt% of the polymer resin and from about 50 wt% to about 90 wt% of the conductive fillers.

38. (New) The electrically conductive shaped article of claim 33, wherein the grafted polypropylene comprises a grafted polypropylene homopolymer, grafted propylene copolymers or mixtures thereof.

39. (New) The electrically conductive shaped article of claim 31, wherein the conductive fillers are selected from carbon fillers, graphite fillers, metallic fillers, inherent conductive polymers and mixtures thereof, and the conductive fillers are in the shape of spherical or irregular particles, fibers, powders, flakes or a mixture thereof.

40. (New) A conductive flow field separator plate for use in a polymer electrolyte membrane fuel cell comprising the electrically conductive shaped article of claim 31.

41. (New) The conductive flow field separator plate of claim 40, wherein the grafted polyolefin contains from about 0.05 wt% to about 10 wt% of ethylenically unsaturated carboxylic acid or its derivatives grafted onto the grafted polyolefin.

42. (New) The conductive flow field separator plate of claim 40, wherein the grafted polyolefin is maleic anhydride grafted polypropylene.

43. (New) The conductive flow field separator plate of claim 40 comprising from about 10 wt% to about 50 wt% of the polymer resin and from about 50 wt% to about 90 wt% of the conductive fillers.

44. (New) The conductive flow field separator plate of claim 42, wherein the maleic anhydride grafted polypropylene has a resin base of polypropylene homopolymer, a copolymer of propylene with other olefinic monomers or a mixture thereof.

45. (New) The conductive flow field separator plate of claim 40 wherein the conductive fillers are selected from carbon fillers, graphite fillers, metallic fillers, inherent conductive polymers and mixtures thereof, and the conductive fillers are in the shape of spherical or irregular particles, fibers, powders, flakes or a mixture thereof.

46. (New) The conductive flow field separator plate of claim 42, having a volume resistivity of not more than about 0.1 ohm.cm and a flexural strength of not less than about 3000 Psi.

47. (New) A method of making a conductive flow field separator plate comprising the steps of:

(a) mixing a polymer resin with conductive fillers to form a conductive blend, wherein the polymer resin is a polymer blend comprising (1) from about 10 to 100 wt% of a grafted polyolefin or a blend of grafted polyolefins and (2) from 0 to about 90 wt% of at least one other thermoplastic polymer having a melting point below 280 °C; and

(b) molding the conductive blend to form the conductive flow field separator plate.

48. (New) The method of claim 47, wherein the grafted polyolefin comprises from about 0.05 wt% to about 10 wt% of ethylenically unsaturated carboxylic acid or its derivatives grafted onto the grafted polyolefin.

49. (New) The method of claim 47, wherein the grafted polyolefin is maleic anhydride grafted polypropylene.

50. (New) The method of any one of claims 47, comprising from about 10 wt% to about 50 wt%, of the polymer resin and from about 50 wt% to about 90 wt%, of the conductive fillers.

51. (New) The method of claim 49, wherein the grafted polyolefin has a resin base of a polypropylene homopolymer, a copolymer of propylene with other olefinic monomers or a mixture thereof.

52. (New) The method of claim 47, wherein the conductive fillers are selected from carbon fillers, graphite fillers, metallic fillers, inherent conductive polymers and mixtures thereof, and the conductive fillers are in the shape of spherical or irregular particles, fibers, powders, flakes or a mixture thereof.

53. (New) The method of claim 47, wherein the separator plate has a volume resistivity of not more than about 0.1 ohm.cm and a flexural strength of not less than about 3000 Psi.

54. (New) A process for making a conductive flow field separator plate for use in polymer electrolyte membrane fuel cells comprising the steps of:

(a) feeding a mixture of a polymer resin and conductive fillers into an injection molding machine, wherein the polymer resin is a polymer blend comprising (1) from about 10 to 100 wt% of a grafted polyolefin or a blend of grafted polyolefins and (2) from 0 to about 90 wt% of at least one other thermoplastic polymer having a melting point below 280 °C,

(b) plasticising the mixture at a temperature above the melting point of the polymer resin to form a melt,

(c) injecting the melt into a mold,

(d) allowing the melt to cure in the mold to form the conductive flow field separator plate, and

(e) removing the conductive flow field separator plate from the mold.

55. (New) The process of claim 54, wherein in step (c), the mold is closed.

56. (New) The process of claim 54, wherein in step (c), the mold is partially opened, and comprising the further step of closing the mold completely and then compressing the melt.